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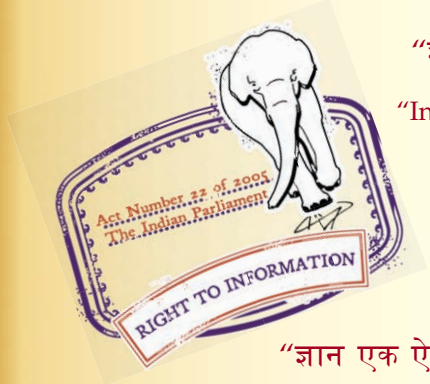

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Indian Standard

GENERAL REQUIREMENTS FOR MUSHROOM VENTILATORS

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GENERAL REQUIREMENTS FOR MUSHROOM VENTILATORS

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Indian Standard

GENERAL REQUIREMENTS FOR MUSHROOM VENTILATORS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 1 January 1966, after the draft finalized by the Marine Engineering and Shipbuilding Sectional Committee had been approved by the Mechanical Engineering Division Council.

0.2 This standard is one of a series of Indian Standards on mushroom ventilators. Other standards in the series are:

*IS : 3280-1966 Dimensions for mushroom ventilators with adjustable head-welded type.

*IS : 3281-1966 Dimensions for mushroom ventilators with fixed head-welded type.

*IS : 3282-1966 Dimensions for mushroom ventilators with adjustable head-cast iron type.

*IS : 3283-1966 Dimensions for mushroom ventilators with adjustable head-cast iron type with provision for passage of light.

0.3 In the preparation of this standard, assistance has been derived from NF J 45-100 : 1955 'Aérateur specification generale (mushroom ventilator-general requirements)' issued by the Association Francaise de Normalisation.

0.4 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960†. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

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1. SCOPE

1.1 This standard deals with the general requirements of mushroom ventilators.

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*Under print.

†Rules for rounding off numerical values (*revised*).

2. TERMINOLOGY

2.0 For the purpose of this standard, the following definitions shall apply.

2.1 Nominal Size — Nominal size of mushroom ventilator is the internal diameter of the ventilator body.

2.2 As the shape of the head resembles that of a mushroom, the ventilator as a whole is normally called by this name.

3. DESCRIPTION

3.1 The different types of mushroom ventilators used on board merchant ships are as follows:

a) Mushroom ventilator with fixed head:
   1) Welded type

b) Mushroom ventilator with adjustable head:
   1) Welded type
   2) Cast iron type
   3) Cast iron type with provision for passage of light.

3.2 With the fixed type, a fabricated head is bolted on to the body or post.

3.3 The adjustable type ventilator consists of a head or hood, body and a spindle with or without handle. The body may be welded or bolted to the deck.

4. MATERIAL

4.1 The material for various parts of mushroom ventilators shall be as given in Table 1.

5. MAINTENANCE

5.1 With the fixed type of ventilators, the hood shall be removed and repainted periodically.

5.2 Provision shall be made for lubrication of locking handles and turning arrangements.

5.3 Ventilators with adjustable heads shall be removed and the screwed portion of the spindle cleaned thoroughly and greased.

6. DESIGNATION

6.1 The mushroom ventilators shall be designated by the name, type, the nominal size and number of the standard. For designations and examples see relevant standards.

TABLE 1 MATERIALS FOR MUSHROOM VENTILATORS

(*Clause* 4.1)

MATERIAL	NAME OF THE PARTS OF			
	Mushroom Ventilators With Adjustable Head-Welded Type (IS : 3280-1966*)	Mushroom Ventilators With Fixed Head-Welded Type (IS : 3281-1966*)	Mushroom Ventilators With Adjustable Head-Cast Iron Type (IS : 3282-1966*)	Mushroom Ventilators With Adjustable Head-Cast Iron Type With Provision For Passage of Light (IS:3283-1966*)
(1)	(2)	(3)	(4)	(5)
Steel conforming to IS : 2062-1962†	Coaming, mushroom head, carrier-ring, spindle guide and stiffeners	Coaming and mushroom head	—	—
Mild steel conforming to IS : 2255-1962‡	Fixed spindle	—	Operating spindle and operating handle	Operating spindle and operating handle
Cast iron conforming to IS : 210-1962§	—	—	Body and mushroom head	Body and mushroom head
Brass conforming to IS : 410-1959‖	—	—	—	Retaining ring
Brass conforming to IS : 1365-1962¶	—	—	—	Fixing screw
Wire mesh conforming to IS : 1568-1960††	Wire mesh	—	—	—

*Under print.

†Specification for structural steel (fusion welding quality).

‡Specification for mild steel wire rod for the manufacture of machine screws (by cold heading process).

§Specification for grey iron castings (*revised*).

‖Specification for rolled brass plate, sheet, strip and foil (*revised*).

¶Specification for slotted countersunk head machine screws (1·6 to 20 mm).

††Specification for wire gauze for general purposes.

INTERNATIONAL SYSTEM OF UNITS (SI UNITS)

Base Units

Quantity	Unit	Symbol
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

Supplementary Units

Quantity	Unit	Symbol
Plane angle	radian	rad
Solid angle	steradian	sr

Derived Units

Quantity	Unit	Symbol	Definition
Force	newton	N	1 N = 1 $kg.m/s^2$
Energy	joule	J	1 J = 1 N.m
Power	watt	W	1 W = 1 J/s
Flux	weber	Wb	1 Wb = 1 V.s
Flux density	tesla	T	1 T = 1 Wb/m^2
Frequency	hertz	Hz	1 Hz = 1 c/s (s^{-1})
Electric conductance	siemens	S	1 S = 1 A/V
Electromotive force	volt	V	1 V = 1 W/A
Pressure, stress	pascal	Pa	1 Pa = 1 N/m^2

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